

IN THE CLAIMS:

Please amend claims 1 and 6 as follows:

1. (Currently Amended) A method for providing a data communication service, which connects a user computer to an Internet service provider via an access server in a local switch center and an IP network, said method comprises:
 - a step of connecting the IP network to the Internet service provider via a first router and to the user computer via a second router, the access server [[via]], and a public switched telephone network ~~a second router~~ respectively;
 - a step of said user computer communicating with said access server based on a point-to-point protocol;
 - a step of said access server receiving a user ID and a password from said user computer based on an authentication protocol;
 - a step of said access server sending said user ID and said password to said IP network;
 - a step of said IP network sending a first network address assigned to said user computer from said Internet service provider to an address translation gateway ~~said access server~~ after authenticating a respective user by using said user ID and said password;
 - ~~a step of said access server sending a second network address to said user computer based on a control protocol;~~
 - a step of said address translation gateway network translating said ~~second~~ first network address sent from said ~~user computer~~ Internet service provider into said first a second network address and sending said second network address to said access server;
 - a step of said access server sending said second network address to said user computer based on a control protocol;
 - a step of providing the user computer with content inside a respective private network not via the first router, said private network including the public switched telephone network and the access server; and
 - a step of establishing communication between said user computer and said Internet service provider.

2. (Previously Presented) The method for providing a data communication service according to claim 1, further comprising:
 - a step of said network assigning said second network address to said user computer;
 - a step of said network said user ID and said second network address so that said user ID and said second network address are related to each other;
 - a step of said network issuing a user authentication request to said Internet service provider; and
 - a step of said network holding said first network address.
3. (Previously Presented) The method for providing a data communication service according to claim 1, wherein said network holds said user ID, said first network address, and said second network address so that they are related to one another.
4. (Previously Presented) The method for providing a data communication service according to claim 1, wherein said second network address is an address described in a network address field in a communication packet.
5. (Previously Presented) The method for providing a data communication service according to claim 1, wherein said communication between said user computer and said Internet service provider is established based on said first network address while said communication between said user computer and said access server is established based on said second network address.
6. (Currently Amended) An address translation apparatus connected via a first router to an access server in a local switch center and a public switched telephone network (PSTN), which is connected to plural user computers, and via a second router to an IP network which is connected to plural Internet service providers (ISPs), comprising:
 - an authenticating part which authenticates a user by using a private network user ID and a private network password received from said access server to retrieve and send a corresponding ISP user ID and a corresponding ISP password to an ISP contracted to provide internet services to the user so as to authenticate the user by the ISP, and said authenticating part sends a private network address assigned to said user to said access server by using a point-to-point protocol;

a translating part which translates the private network address into a public IP network address assigned to said user computer by one of the Internet service providers;

a local service server which provides the user with content inside a respective private network not via the second router, said private network including the public switched telephone network and the access server; and

an output part which outputs said public IP network address to said IP network.

7-10. (Cancelled).

11. (Previously Presented) The method for providing a data communication service according to claim 1, wherein said point-to-point protocol is LCP, said authentication protocol is CHAP, and said control protocol is IPCP.
12. (Previously Presented) The address translation apparatus according to claim 6, wherein said translating part holds said private network user ID, said private network address, and said public IP network address.
13. (Previously Presented) The address translation apparatus according to claim 6, wherein said private IP network address is used to access said one of the Internet service providers.
14. (Previously Presented) The address translation apparatus according to claim 6, wherein said public IP network address is used to access a server in said network.
15. (Previously Presented) The address translation apparatus according to claim 6, wherein the ISP is disconnected automatically after communication between the ISP and the user stops for a predetermined time period.
16. (Previously Presented) The method for providing a data communication service according to claim 1, further comprising: disconnecting the Internet service provider automatically after communication between the Internet service provider and the user computer stops for a predetermined time period.